SY05

Improving stroke referral from home to hospital

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SUMMARY

In Malaysia, stroke represents the third leading cause of mortality, and it is projected that by 2040 stroke would become the second cause of mortality with one in four Malaysians expected to suffer from stroke. Raising and maintaining awareness of the symptoms of stroke and transient ischaemic attack in the population as well as improving our prehospital services will ensure its recognition, and the need to immediately seek help are key to optimising treatment and outcomes. Early assessment and triage for people with stroke is important because the time windows for delivering the most effective interventions, such as thrombolysis, thrombectomy and commencement of secondary prevention, are measured in hours. The earlier treatment is started the more effective it is. In a progressive stroke pathway, it will be important to ensure ambulance response times are as short as possible, through appropriate assessment and prioritisation of emergency calls. Transfer to hospital is a vital part of a progressive stroke pathway. .

SY06

Diagnostic imaging and endovascular treatment of stroke

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SUMMARY

Stroke is a significant global health issue with a high prevalence and impact on individuals and communities. Over the years, stroke treatment has undergone a significant evolution from only supportive care and rehabilitation to more advanced treatments. The evolving landscape of stroke treatment emphasizes the importance of early intervention and the need for ongoing research to optimize patient care and outcomes. Mechanical thrombectomy has revolutionized stroke care and has significantly improved patient outcomes when performed within the appropriate time window. This minimally invasive procedure removes blood clots directly from the blocked arteries, improving outcomes and reducing disability. In suspected stroke cases, various imaging modalities are employed to accurately diagnose the condition and guide subsequent treatment decisions. These imaging techniques serve distinct purposes in assessing the stroke's type, location, and severity, enabling timely intervention. Non-contrast computed tomography (CT) is often the initial imaging modality employed to rule out haemorrhagic stroke, which requires a different treatment approach. Magnetic resonance imaging (MRI) with diffusion-weighted imaging (DWI) is highly sensitive for detecting early ischemic changes, assisting in determining the extent and location of the infarcted brain tissue. CT angiography provides detailed information about the cerebral vasculature, identifying occluded blood vessels. More advanced imaging modalities like CT Perfusion and MRI with fluid-attenuated inversion recovery (FLAIR)/DWI mismatch analysis can help identify patients who might benefit from endovascular treatment, even beyond the traditional time windows for intervention.